Front R

MAR 30 1920

LIBRARY OF THE MEDICAL DEPT.,
UNIVERSITY OF MICHIGAN,
ANN ARBOR, MICH.

THE RHODE ISLAND MEDICAL JOURNAL

Owned and Published by the Rhode Island Medical Society. Issued Monthly

VOLUME III
NUMBER 3
Whole No. 126

PROVIDENCE, R. I., MARCH, 1920

PER YEAR $2.00
SINGLE COPY 25 CENTS

CONTENTS

ORIGINAL ARTICLES

The Anesthetic Problem in Lung Surgery—James T. Gwathmey, M.D. . . . 41
Discussion of Dr. Gwathmey's Paper . . . 42
The Thilerium Hominis—Charles Fenner Peckham M.D. 47
Annual Conference of Public Health and Legislation . . 53

EDITORIALS

Enlarging the Scope of the Journal . . . 54
What is the Practice of Medicine? . . . 55
Support the Medical Societies . . . 55
The Widely Trained Man Should Write More . . . 56
Case Reports in Medical Meetings . . . 56
Federal Aid to Soldiers . . . 57

SOCIETY MEETINGS

Newport County Medical Society . . . 57
Pawtucket Medical Association . . . 57
Providence Medical Association . . . 57

HOSPITALS

Providence City Hospital . . . 59

BOOK REVIEW

Personal Hygiene and Home Nursing . . . 59

MISCELLANEOUS

The Library Table . . . 60
Motion to Adjourn—William R. White, M.D. . . . 61

ENTERED AS SECOND-CLASS MATTER AT THE POST OFFICE AT PROVIDENCE, R. I., UNDER ACT OF MARCH 3, 1879

"Just What a Ligature Should Be"

is the verdict of surgeons who have used
Armour's Surgical Catgut Ligatures

THE real test of catgut is in its behavior after being buried in living tissue. The surgeon wants a ligature that is strong enough to hold, that absorbs uniformly and that is uncontaminated. What make should be demanded? **Armour's,** because the Armour Ligatures are prepared from selected lamb's gut which is sterilized before and after drying, before and after sealing hermetically in tubes; lamb's gut that is manipulated from start to finish by men who know that it is surgical sutures they are handling.

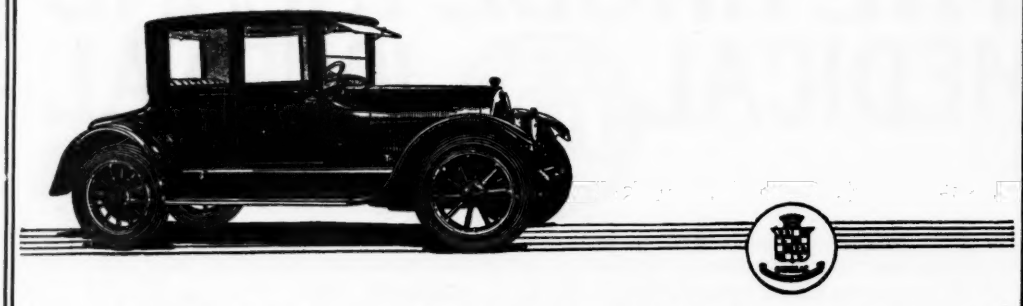
It is the effort of these men to produce the best catgut ligatures ever put out, i. e. a strong, smooth, supple and thoroughly sterile suture.

Every lot of ligatures made in the Armour Laboratory is tested bacteriologically and no ligature is released until the bacteriologist has pronounced it sterile.

LABORATORY PRODUCTS

Plain and chromic 60 inch, sizes 000 to 4 inclusive. Emergency lengths (20 inch).

ARMOUR AND COMPANY
CHICAGO



A WOMAN can drive the Cadillac in ease and comfort without worrying about what's going on under the hood. That the wives and daughters of Cadillac owners appreciate this, is evidenced every day on our city streets and country roads.

Cadillac Auto Company of Rhode Island

ARTHUR J. FELTHAM, Manager 9 FEDERAL STREET, PROVIDENCE, R. I.

Goodyear Cord Tires

Tire Repairing

CORP BROS.

40 Mathewson St. Providence, R. I.

John A. Gammons

ALL KINDS OF

INSURANCE

PHYSICIANS LIABILITY A SPECIALTY

171 Westminster St., cor. Dorrance

"Behind the Clock"

THE RHODE ISLAND MEDICAL JOURNAL

The Official Organ of the Rhode Island Medical Society
Issued Monthly under the direction of the Publication Committee

VOLUME III
NUMBER 3 } Whole No. 126 PROVIDENCE, R. I., MARCH, 1920 PER YEAR $2.00
SINGLE COPY 25 CENTS

ORIGINAL ARTICLES

THE ANESTHETIC PROBLEM IN LUNG SURGERY.*

By JAMES T. GWATHMEY, M. D.,
New York, N. Y.

This paper is based upon between eighty and one hundred animal experiments performed in the Central Medical Department Laboratories, A. E. F., Dijon, France, and a large clinical experience with surgical teams working in the advanced zone of the American Army and confining themselves almost exclusively to chest surgery.

Both the anesthetic and the method to be employed were thoroughly tried out and finally decided upon before they were employed in the surgical work at the front.

The anesthetic agent to be employed in lung surgery should be one that, other things being equal, sustains the blood at the highest level consistent with good surgical anesthesia during the operation and with a minimum of reaction afterward. By process of elimination the choice lay between ether and nitrous oxide and oxygen, both of which were employed in the animal experiments. The final decision rested upon nitrous oxide and oxygen as the agent most nearly meeting the requirements.

The positive pressure method finally selected, after eliminating the endo-tracheal and endo-pharyngeal methods, involved the use of an air-tight mask (with a rubber bag reservoir, close to the mask, for the gases) placed upon the patient's face. A pressure of from five to twelve millimeters of mercury had already been determined upon as a result of the animal experiments. The positive pressure method used provides for: A. A constant supply of fresh gases; B. a constant escape of some of the bases; C. a slight amount of re-breathing. The escape of the gases may be through an expiratory valve, although a valve is not absolutely essential, since the mask may be held in such a manner that a constant leakage occurs. No air can possibly enter the apparatus at any time when positive pressure is sustained. A slight positive pressure in addition to the gases is unquestionably an important factor in maintaining anesthesia. In addition to being an aid in maintaining anesthesia, positive pressure in lung surgery is a great aid to the surgeon, facilitating the examination of the lung, making the operation easier, eliminating the necessity for dangerous traction, giving satisfactory hemostasis, and obviating the need of undue haste.

The Army apparatus for administering nitrous oxide and oxygen is so simplified and so inexpensive that it may be universally used not only for lung surgery but for other operations as well.

It was found, from the animal experiments, that full surgical anesthesia that is safe without preliminary medication, is unsafe with this medication. For this reason the technic gradually merged from a deep to a light anesthesia, and finally to analgesia with unconsciousness. The high percentage of oxygen (15 to 35 per cent.) used, in connection with other obvious symptoms, would seem to prove that analgesia and not anesthesia is present. It occasionally happened, in the earlier work, that when too much oxygen was given, all physiological requirements were met and breathing ceased temporarily, for a half or three-quarters of a minute, the pulse continuing as before, and the patient having a pink color. This temporary cessation may be obviated by (1) decreasing the positive pressure momentarily, (2) allowing air to enter the mask, or (3) slightly increasing the amount of nitrous oxide. By using any one

*Abstract of a paper presented before a joint meeting of the Providence Medical Association and the Providence Society of Anesthetists, December 1, 1919.

of these methods the breathing will continue normally.

The technic employed in all chest cases calls for the administration of one-quarter, three-eights, or one-half grain of morphin, usually three-eights, hypodermatically, forty to sixty minutes before operation. Rapid or labored breathing, sometimes an important harmful factor in chest cases, is thus eliminated, and the patient comes to the table in the best possible condition. To begin with, just enough of the anesthetic agent is used to maintain analgesia, with the Army apparatus, two holes of oxygen and six of nitrous oxide. The mask is held tightly on the face, and the first three or four exhalations are allowed to escape through the expiratory valve, after which the valve is turned off, and part of each exhalation is allowed to escape between face mask and face. The rubber bag is filled to plus pressure. When the skin incision is made, if there is no movement or indication of pain, the oxygen is increased to three holes, the nitrous oxide remaining the same. The patient has a pink color, the lid reflex is active, the eye rolling, yet the muscles are well relaxed. From this time on any further increase in oxygen is determined by the condition of the patient. If the patient has been gassed or is still bleeding, equal proportions of the gases may be used, or, in some instances, 75 per cent. of oxygen and 25 per cent. of nitrous oxide, positive pressure being maintained in all instances. In every case full oxygen is given as the last stitches are inserted. The patient now has a very pink color, with pulse and respiration so nearly normal that his true condition may be almost entirely masked. He should be treated in every instance as a shocked patient,—a point which should be clearly emphasized.

This combination of the highest safe physiological dose of morphin, reinforced by nitrous oxide given with the highest possible percentage of oxygen, as stated above, with positive pressure, given in the easiest and simplest way, results in the safest and most satisfactory narocosis available to-day for lung surgery. When the plan here outlined is followed, the patient rests quietly throughout, and rarely moves or utters a sound.

DISCUSSION OF DR. GWATHMEY'S PAPER.

Dr. P. E. Truesdale, Fall River, Mass.—The first part of Dr. Gwathmey's reprint, down at the bottom of Page 3, says "that the surgeon should let the anesthetist alone." I feel that I should let the anesthetists alone in this discussion.

I agree that operations on the lung should be eliminated whenever possible. There are two classes of cases that must be considered whenever we talk about chest surgery. One is the type we see in civil practice, the chronic empyema, and the other type we saw in war—those suffering from hemorrhage, shock and perforation of the viscus.

In France I saw not a very large number but quite a good number of chest injuries. In the autumn of 1917 I had the good fortune to go on the French front to a French evacuation hospital. There were at that hospital three surgeons, Drs. B. Marquis, Pierre Duval and Hartman Cross, who did base operating there, so that the best men in France were operating at that hospital. Pierre Duval was doing chest surgery and Dr. Livesey, who went up there with me, told me after the first operation that my eyes stuck out one-half inch. I tell you that was a little experience, and I was thrilled to see a skillful war surgeon do an operation upon the lungs. He made his incision over the fourth rib whether the injury was in the back or front. He always went into the same place with his cautery, excising four or five inches of the rib, and with his French self-retained retractors opened the rib widely throughout the lung and searched for the foreign body, usually finding it; wiped out the chest cavity with ether and closed it up tight. He did that always in twenty minutes, if you happened in at that time you would see him when he had the lung in his hand. It is safe to say that the period of time elapsing from when he had first found and operated upon the lung was scarcely more than five minutes. There were two other surgeons in that hospital who occasionally did chest operations, Drs. Cross and Marquis. They were very skillful men but were very deliberate and took considerable time in chest operations. Neither one of them would finish an operation for the removal of a shell

fragment in the lung in less than an hour. Their mortality was between thirty and forty per cent.

In that drive in October Pierre Duval operated on fourteen cases and lost one patient. They remained there two weeks, and one patient died. In general his mortality was fifteen per cent., and when we realize that the mortality in chest cases in general was twenty-five per cent. in the advanced dressing stations and an average of twenty per cent. in the evacuation hospitals and ten per cent. in the mobile hospitals, making altogether a mortality of fifty-five per cent. of chest cases from the time they were picked up on the field until they reached home, you can see that Pierre Duval's mortality was below that of any other of the average surgeon who was doing chest surgery. He had the same anesthetist and always gave ether, never giving morphia or any other drug before the operation. I talked to him about the different anesthetics and about the administration of drugs before operations, and he said that on some cases the year before he had tried out the various methods and had come to the conclusion that it was safer not to give the patient morphia or any other drug before ether. An expert anesthetist gives the minimum amount of ether and he completes the operation in the minimum amount of time, and I believe that is the secret of his success.

These chest patients who were brought into the mobile hospitals were nearly all in a state of shock, and that shock might be due to the injury itself or to hemorrhage, and it was often times very difficult to discriminate; sometimes it was impossible. If it was due to shock and an operation was done, it made no difference whether he used gas oxygen or anything else. The patient died. But if the shock was due to hemorrhage that was continuing and you waited, the wounded man died, and if you operated in all probability you could save him, so that it was necessary to decide in the first place whether the wounded man was suffering from shock and whether the shock was due to hemorrhage that was continuing. If he had a sucking wound in the chest we knew that he was suffering from hemorrhage, and if we closed the sucking wound he would very probably get well because then the thoracic pressure would stop the hemorrhage If a man was wounded by a bullet, which was usually a through and through wound with the orifice of entrance and exit closed and the site of the chest pretty well filled, we did not operate because we felt reasonably sure that ultimately the pressure and clotting that occurred in the chest would close it unless it happened to be in the upper part of the lung and in front; then the man could spit blood from the wound itself. If there was a considerable pressure against the heart on the left side, then operation was indicated just as if he had a sucking wound and the operation done to control bleeding. In all of these cases it required a finesse of judgment, and those of us who had the opportunity to see Pierre Duval had a real good start in introductory work on the chest.

You could not help seeing the place, which gave one the impression that after all ether was a pretty skillful form of anesthesia if administered properly and that morphia was a dangerous drug. If a man came in with a sucking wound and had a blood pressure of eighty, he had one-quarter grain of morphia given perhaps in the advanced dressing station, one-quarter of a grain of morphia given in the mobile hospital, and died quietly. If a man did not have morphia and was dying with hemorrhage, occasionally then perhaps we saved him because he did not have morphia. These were measures, of course, used in the war. If a man had received a bullet through the lung, or was struck in the chest and had a penetrating wound of the lung, and was taken to the hospital and given one-quarter of a grain of morphia at once, it was difficult to know what to do. Let alone, the surgeon can decide what it is best to do for him. On the other hand, if it is a case of empyema, we know that in the acute case, if we decide to operate, the quickest operation possible is to be done. If you could eliminate all influence of shock and anesthesia, this is unquestionably most desirable.

A good many surgeons, who have come home from France, have expressed their disappointment with the small amount of surgical knowledge we have obtained from war experiences. There have been comparatively few contributions that have been really instructive during the war. As a matter of fact, surgery had a little set-back because before war was declared

a great many pressing and immediate problems were being worked out which were abandoned, and now that the war is over it does not seem that the average man is as ready to dig for knowledge as he used to be. But when you consider that England was in the war four years, that French surgeons were in the war four years, and that the French surgeon, who was usually a lieutenant, but sometimes a captain, was usually allotted a matter of three hundred and fifty francs per month, and living in that way for four years, one can readily understand that the spirit of progress in the minds of these men is in the direction of more pay and shorter hours. It has reached the office, the operating room, and the lecture room just the same as it has gone into the factories, the railroads and the mines. There are mighty few fellows who want to go back on that slate. I feel to-night like congratulating Dr. Gwathmey for getting out of the war, not only with having done something really instructive, but with a spirit that will continue in this work of research with anesthetics.

I am not a pessimist in regard to what American surgeons will do in the laboratory and in the operating room, but I think perhaps that I feel like the German prisoner whom we had in our hospital. He was taken prisoner a few days after the eighty-ninth division went into the American front—General Wood's division. The first night they went in they had several thousand gas shells sent over them, and had between seven hundred and eight hundred casualties that night. About two divisions were left in support and a colored regiment was sent up to relieve these fellows who had been gassed. This German prisoner said, "The Americans are certainly a hard crowd to beat." "You know," he said, "we gassed those fellows all night until they were black in the face and they came over the top after us in the morning."

Dr. Albert L. Miller, Providence, R. I.—I think that this society is very fortunate in hearing anyone so well informed on the subject connected with anesthesia, and especially that connected with the chest. We all of us see lung surgery, sometimes with the same experience these men have had, and I think we have a lot of excellent experience in this line, too. And then again because Dr. Gwathmey from his tremendous experience has held to knowledge that he has gained during the war, and has taught us a great deal of real value.

I am especially interested in what he had to say and what Dr. Truesdale has said about light anesthesia in these cases, because it has been generally supposed and is rather an abstract in the mind of the profession at the present time that shock is likely to occur under light anesthesia, and it is necessary to give either gas oxygen or ether in order that there may not be shock. Recently it has been proven that shock never occurs as the result of light anesthesia and that it is impossible to anesthetize a patient so lightly that as a result there may be shock, but rather that shock results from deep anesthesia. I think that it is especially noteworthy in Dr. Gwathmey's paper where his comparison of gas oxygen anesthesia and that which he uses as light anesthesia appears and with which he does not find shock.

There are some other features which should be outlined for the operation under anesthesia. I think that after we decide what anesthetic we should use that we ought to pay attention to the posture of the patient. There is a great deal of damage done in these cases, especially when the patient is placed in a sitting position or when rolled on to sound lungs. The operation performed in the sitting position tends to put the patient in a condition of shock, and if the patient is rolled over at all on to a sound lung he immediately has the dyspnea increased and considerable extra weight on the heart. In some cases these patients may have a dilatation of the heart result from the great stress that was put on it from this cause. I believe that it would be better if we should establish a principle and never put the patients under anesthesia in a position which they are not able to assume except with a considerable degree of comfort. I would like to ask Dr. Gwathmey his opinion of such cases.

I was interested in the gradual removal of positive pressure of permanent cases. It sometimes seems, after an operation of half an hour or so, that having this pressure removed at the end of the operation rather suddenly that the patient would lose a great deal of benefit that should come from positive pressure. I would like to have Dr. Gwathmey tell us how gradually he was used to removing the positive pressure.

Dr. John W. Keefe, Providence, R. I.—It

has been my privilege to see Dr. Gwathmey give anesthesia in New York on several occasions, and I oftentimes wished we could have him at the hospital to help us regularly. But these expert anesthetists we cannot always have with us, and the great matter of anesthesia giving must be by men who are skillful. I feel that the interest taken by these societies of anesthetists has already done a wonderful amount of good.

Perhaps the drop method of giving anesthesia, which Dr. Gwathmey describes, is the method that is used to anesthetize a very large number of patients today. The gas oxygen method might be of value to a considerable number of people because it is absolutely easier to have an apparatus on many occasions, so if these men would study this other method as well so that they could commence to carry out the benefit of their experience with this method of giving gas oxygen in the lung surgery cases it might help a good deal. It would seem that there are times when it may be impossible to prevent trouble with this method. Your patient may become so debilitated that perhaps anesthesia may be impossible and that you may have to take off your mask. Then again you may have vomiting while the operation is going on, necessitating taking off the mask and again interfering with your operation. Most of the cases of empyema, to my mind, have been done with local anesthesia. There we have made scarcely any progress, and the fact that you can give the patient morphia previously and then use local anesthesia seems to be the most desirable. For some cases of abscesses of the lungs we merely will have to find some other form of anesthesia, and no doubt the gas oxygen method is the ideal method. Happily there are few cases of this type of operation that the average surgeon may have to deal with. Some men, making a special study of lung construction, will have special apparatus such as Meyer has developed in New York City.

I want to congratulate Dr. Gwathmey on his coming here with us, and also Dr. Truesdale, and I feel that the stimulation which these men have given to men who are doing surgery is going to be of unlimited value in the future.

Dr. William B. Cutts, Providence, R. I.—My experience in lung surgery was very intensive and very short so far as any extensive experience goes. As a general surgeon, I suppose I have seen some of the ordinary lung cases that come into the general hospital,—that is an occasional abscess and the empyemas.

About a year ago at this time, or a little earlier, following an epidemic of pneumonia in the United States Army General Hospital No. 2 in Baltimore, it was my duty to operate upon sixty cases, in three weeks, of acute empyema following the pneumonia epidemic that was raging all over the country. Some of those cases were operated upon at an early stage following the pneumonia and it was found in all of those cases where operation was done early before the empyema had had time to become localized and before pus had formed that the operation did not give relief, and that the patients all practically died. I was at that time Chief Operator under direction of a Major General, and we were instructed to use our own judgment. Those cases, of course, we operated upon without anesthesia, except local. Novocaine was used at that time. A short time later the cases that had developed a real empyema came to the attention of the surgical service and as I say something over fifty cases, or perhaps about sixty in all, were operated upon in a short time. Some of those cases that were in extremely critical condition with very rapid pulse, giving a warning of pus, and showing a temperature, were in septic condition. We operated simply by a puncture. All of those cases so operated were living when I was discharged from the army, and some were practically well. The other cases that were not extremely sick were operated upon by making a resection of one of the ribs, usually the eighth or ninth. A few of those were operated upon under novocaine local anesthesia. Those patients complained bitterly of the pain at the time of the operation in spite of the most careful use of the novocaine. It was impossible to resect the rib without causing pain. Some patients do not complain very much but stand a good deal of pain. It is impossible to anesthetize the tissues underneath the rib by any local anesthesia. Following that experience I thought we might use the nitrous oxide and oxygen anesthesia. This was administered by a trained nurse who had been especially trained to do this sort of work. I operated upon about thirty cases under this anesthesia—nitrous oxide and oxygen. They were practically all resections of the rib. All of those cases went through

the operation without shock or disturbance of their general condition and all suffered no discomfort or pain whatever, making a good recovery.

In my experience with those cases, I should want to give something beside the local anesthesia if it could be given safely. I believe that it is perfectly safe if used by a person accustomed to giving it, and the patient is very much more comfortable during and after the operation and suffers less from shock than under local anesthesia. It makes a great deal of difference how it is given. Anesthesia must be given with brains. I believe that with the proper use of these anesthetics, especially nitrous oxide and oxygen, the greatest benefit will come to the patients on whom they are used.

Dr. James T. Gwathmey, New York City.—The principle of the thing is in determining who should be operated upon at once in order to prevent infection as well as for other reasons. We have used ether and sometimes chloroform and we now use nitrous oxide and oxygen, usually having three tables with two big tanks forming the extra table. The surgeon operating does not change his uniform, only sterilizes his hands, puts on sterile clothes, and has a sterile towel from a sterile nurse, and as we had two nurses we kept the bearers busy. We operated on twenty-seven patients, taking them just as they came. Some men sometimes found a foreign body, and after making an excision sent the patient away. The instant the surgeon was through, the next patient, who was prepared ahead of time, was already sterilized and waiting for him. This was done by using the same big tanks and simply changing masks, thereby determining the efficiency of any operating team by utilizing the full time of the surgeon. The surgeon never had to wait. There were on one day twenty-seven cases waiting for the surgeon between the hours of two in the afternoon and eight at night. The surgeon was sterilized from three to five minutes and by that time the patient would be ready, so you can see that no time was lost whatever. But, of course, he did not care to do that every day. In regard to the advantages of nitrous oxide and oxygen, we save the patient at the start from a deep anesthesia. It does not make any difference what kind. The method of light anesthesia was frequently used from start to finish, and this enables the surgeon to do what he wants to do, and the patient comes out of the anesthesia as soon as the mask is removed.

Dr. Truesdale spoke of his discovery of how morphia was considered dangerous by the French surgeons. I was with the French army and recognized that same effect. You should remember that with the French surgeon if your mother was dying you would not give her morphia. They think it akin to sin to give a patient morphia. Dr. Truesdale's statement in regard to a mortality of fifty per cent. was mild. We were not able to follow up the mortality of our cases that far. These statistics will probably be published within the next twenty or thirty years. The mortality was something distressing, and it was terrible to see the fine men brought in dying in spite of every method and in spite of every kind of surgery taking place.

Dr. Miller's question in regard to the position of the patient is important. If the position of the patient was moved on the table in the first half hour after the anesthesia, it did not make much difference, but if altered after that it makes a great difference and causes a lowering of the blood pressure. If other work was to be done, we usually did that work first and then turned the patient over and did the chest work, but whenever a patient was moved after the first half hour of anesthesia it immediately caused lowering of the blood pressure. Sometimes the surgeon gets down under and keeps the patient in the same position. In regard to gradual removal of positive pressure, let it go down very slowly. Keep the positive pressure until the sutures are finally made and closed up and for some little time afterward, and then very gradually let down the pressure to about normal, taking as long as the case allows; if possible take five minutes.

Dr. Keefe referred to a universal method. Now a great many of us have been wondering about that, but little attention has been paid to it. One of the simplest methods I know of and much safer than the "drunk" method is simply to take the low pressure oxygen tank and attach a tube from the oxygen tank to a mask, just covered with a towel. Take salt and add to the water, chill, and put ether in and let oxygen through. Simply putting of ether on the mask is a much safer and better method. Dr. Keefe referred to vomiting necessitating removing the

mask. Sometimes the stomach would be full, but that did not occur very often. In such instances take the mask off, take a towel, wipe off the mouth and put back immediately.

Dr. Cutts referred to the local anesthesia and the trouble he had noticed with it. I have seen the same thing. I am glad to hear him bring out something that seemed to be in favor tonight. Pain is a great factor in shock. Now in using local anesthesia we have one method now used in thousands of cases in place of ether by mouth. By using the local anesthesia you will find that the pain is practically eliminated from your operation if used after ether.

THE THILERIUM HOMINIS

A Preliminary Report on a Hematozoic Parasite Found in Mucous Colitis.

By Charles Fenner Peckham, M. D.,
Providence, R. I.

In the year 1914 after studying a series of histories of individuals suffering from various abdominal disturbances, the following conclusions were drawn:

1. That the majority of these patients dated their sickness from an acute abdominal illness, and that this acute illness often occurred in the first years of life, especially in bottle-fed infants.

2. That at the time of the initial attack, there was uniformly a great increase in the amount of intestinal mucus, and that these mucous discharges afterwards occurred periodically.

3. That following the acute attack, certain dyspeptic symptoms more or less irregular in their occurrence made their appearance; that the patient had to exercise care in the selection and the amount of food taken in order to be comfortable; and that there was a great liability of attacks of indigestion either acute, subacute or chronic.

4. That once or twice yearly, either in the spring or the fall, these patients were especially miserable, passed mucus, either glairy or membranous and that their powers of resistance were especially reduced at these periods.

5. That certain individuals, whose physical condition resembled that of laboratory animals in the condition of sensitization exhaustion from the parenteral administration of foreign protein, gave a history of an acute intestinal illness followed by a long period of intermittently progressive gastro-intestinal disturbance.

6. That a majority of patients with the symptoms and signs of degenerative lesions in the kidneys, liver, heart, blood vessels, brain, spinal cord, nerves or ductless glands, in whom the possibility of a syphilitic infection could be excluded, give the same previous history.

7. That the urinary findings, more especially as regards the presence or absence, or the increase or decrease of the excretion of indoxyl, diacetic acid, acetone, oxalic acid, urobilin, the body responding to Ehrlich's aldehyde, tyrosin and leucin, were not materially affected by changes in diet, gastro-intestinal conditions, or by ordinary treatment.

8. That the results of the analysis of gastric contents, feces and urine, changed from day to day and did not seem to vary concomitantly with the physical condition of the patient; that these were irregular and confusing, and did not seem to correspond in any way with the severity of the enterogenous intoxication.

9. That in the history of these sufferers, three periods were apparent:

(a) A period of acute illness followed by

(b) A long period of intermittently progressive gastro-intestinal disturbance, with finally

(c) A period of progressive organic changes ending in death.

The fact that these patients showed such variability of symptoms and physical signs, and a spring and fall exacerbation, lead to the suspicion of a chronic subtertian malarial infection.

A careful and systematic search of the blood of these patients proved that this was not the case. It was noted, however, that the stained specimens of blood from these individuals very generally showed peculiar punctate bodies, both within and without the erythrocytes, that were at first thought to be the result of an imperfect technique in the staining methods. Trial after trial with freshly prepared stains and reagents conclusively showed that this phenomenon could not be ascribed to any error in technique or in the quality of the reagents used.

In the specimens of fecal matter stained by Gram's method, the presence of small spheres deeply positive to Gram's stain, which were at first thought to be bacteria or the spores of molds, attracted attention. These were so uniform in size,—one-fifth the diameter of a red

blood cell, as to be a cause for remark. They were uniformly present at the time of the mucous discharge. They defied all methods of cultivation.

So far, two signs were regularly present in all these cases,—(a) masses of punctate nuclear matter in the stained specimens of the blood, and (b) spherical Gram positive bodies in the intestinal mucus.

Having in mind the fact that the method of dark ground illumination had proven so valuable in the studies of the spirochaetae of syphilis, this method was tried upon the blood with a view of discovering the origin of these minute masses of nuclear material, fresh specimens of blood being used in the investigation. The specimens, however, contained such a wealth of the normal organic constituents of the blood, that this method did not prove to be of great utility.

Finally, a method combining a fresh specimen, a very brilliant source of illumination, a pinpoint diaphragm placed under the condenser, an electrically heated warm stage, and a thermometer set in the stage of the microscope was evolved that gave better results for this work than the indirect illumination.

The greatest advantage shown by this method was the speed with which the examination could be performed. The specimen of blood could be obtained and be under examination in the space of sixty seconds, and could be kept under observation for several days at body temperature if required. The specimens of blood were prepared after the method of Manson,[1] special attention being given to cleansing the skin at the point of puncture.

Upon first applying this method, the peculiar behavior of the deformed erythrocytes attracted attention. Strange to say, that while the normal circular red cell remained quiet, the poikilocytes not only had a to and fro movement but often showed progressive motion in straight lines; pushed other cells aside in the course of their travels;—all this taking place without the influence of any current in the specimen.

Upon examining the so-called "blood dust" in a series of specimens the fact that this varied in amount from day to day concomitantly with the physical condition of the patient proved of great interest. A careful study of these minute forms under this method of illumination and at body temperature permitted a differentiation of this material into small specks, large specks, headlets and spheres, and brought forth the fact that outside of any Brownian movement, many of them showed progressive motion.

It was also noted that the headlets of large size seemed occasionally to have a great attraction for one another, went through the process of "clumping" with the result that small irregular masses were formed that showed an internal heaving movement.

While the study of these small headlets was in progress, certain very active bodies, varying in size from one-fourth the diameter to the full diameter of an erythrocyte and of perfect hourglass or dumbbell form, were noted with considerable speculation as to their origin and nature. Finally, in certain specimens, in which the clumping stage was present when the blood was taken, these minute dumbbells were observed issuing from the clumps and swimming away freely in the serum.

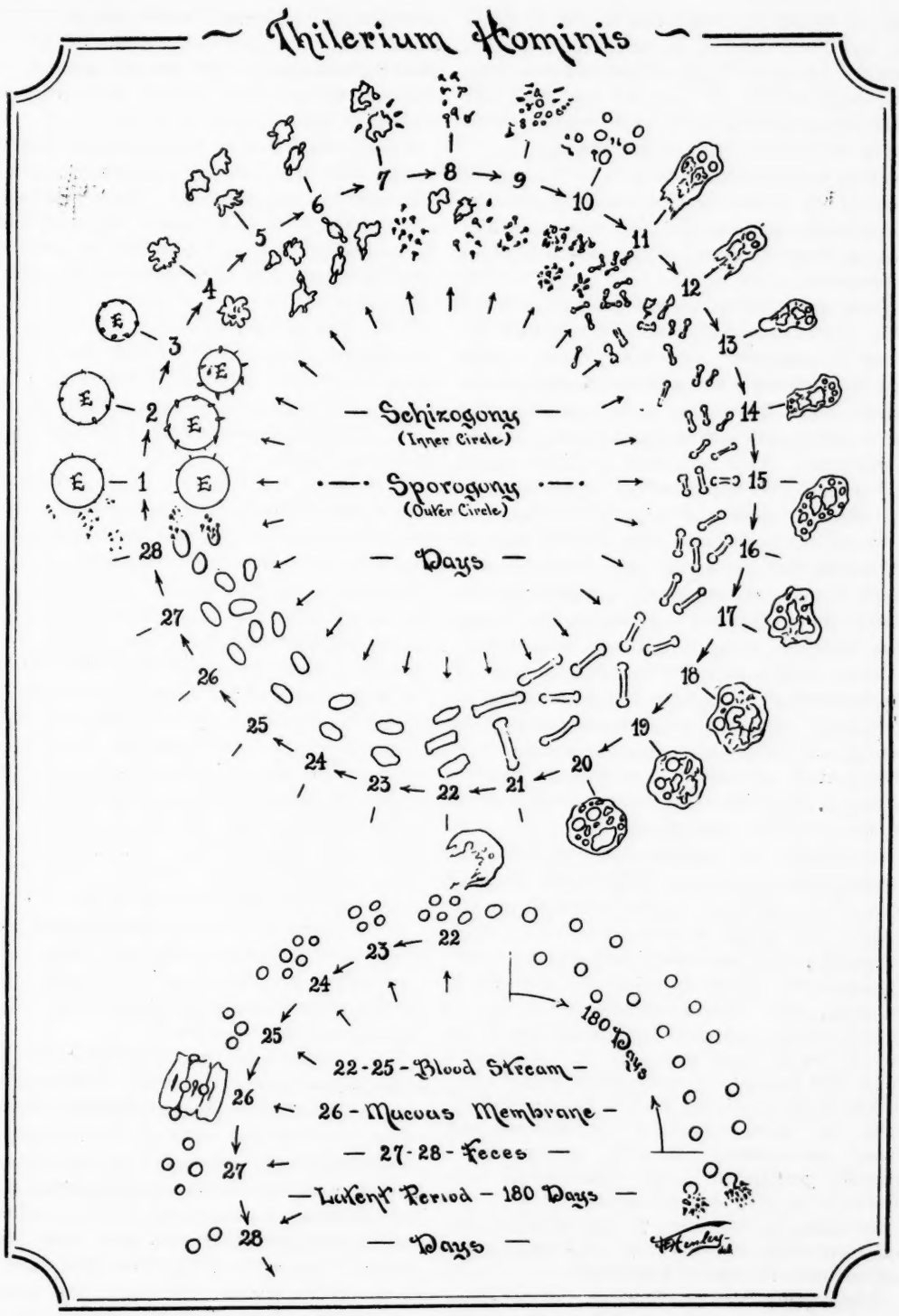
In the specimens studied, these dumbbells were observed of various sizes but it was noted that any that exceeded the diameter of an erythrocyte were absent. When they reached this size, they disappeared from the peripheral circulation.

As these dumbbells increased in size, their contour changed. At first their form was very thin and attenuated. As their size increased, their isthmus thickened and in the larger ones it seemed to have exceeded the two poles in development, giving the micro-organism a very chunky appearance.

Finally, in a specimen taken from an individual showing a mild psychosis, who gave a previous history of gastro-intestinal disturbance, actively motile rods with clubbed ends were observed whose length was one and one-fifth the diameter of the red cell.

The character of the motion that these dumbbells showed was interesting. The very small forms were especially active, tumbling about and spinning first upon one pole and then upon the other. As their size increased they seemed to lose this youthful activity and gradually took on a progressive undulatory motion. This was especially noticeable in the large rod-like forms where an internal, writhing, corkscrew movement, suggesting the presence of an undulatory membrane, was the rule.

During the course of these studies the pres-



Schematic Representation of the Life History of the Parasite

ence of ovoids of a moderate degree of activity, and a trifle shorter in their long dimension than the diameter of the red cell had been very frequently noted. In most of the specimens these appeared as smooth ovoid masses showing an internal protoplasmic movement.

These ovoids were believed to be the mature form of the micro-organism and the harbingers of an acute exacerbation. The merozoites that they discharge at maturity are apparently ultramicroscopic.

Upon again taking up the study of the red cells, there appeared to be several different types of crenation. In order to avoid crenation from chemical and physical changes in the plasma, only those cells were examined that were surrounded by healthy, circular, dellated crythrocytes. Cells with fine, medium, coarse and irregular crenations were, for purposes of investigation, differentiated in this study.

As all these crenated cells showed,—(a) a movement that the erythrocytes crenated as a result of chemical or physical changes in the plasma did not possess; (b) irregularity of form that chemical crenates did not possess, apparently from a loss either local or general of the interreticular substance and a shrinking of the elastic reticulum; (c) that they were uniformly paler and more coppery in color than the chemical crenates; it was believed that the changes noted in these red cells were the result of the activity of some parasite.

In piecing this information together and checking the microscopic findings with the history of the patients, the conception of an infection, the length of life of whose parasite exceeded that of any others that are commonly encountered, excepting syphilis and other spirochaetiases, seemed plausible. The length of life of the parasite was estimated at from twenty-five to thirty days. At first it seemed impossible that any micro-organism should have a life history covering such a long period of time. In again comparing the histories and blood examinations, however, a remarkable monthly periodicity in the exacerbations was found in many of the individuals.

In taking up the study of the leucocyte, the question at once arose—what is the microscopic appearance of a normal leucocyte?

Upon going over the literature of the white blood cell, very little information on this subject could be found. Authors have directed their attention to the diseased leucocytes, the transitional stages, the chemical reactions of the enclosed granules and the presence of pigment, but the description of the normal adult leucocyte seemed to have escaped attention.

Finally, the following characteristics were assumed for the normal polymorphonuclear leucocyte at a temperature of the human body.

(a.) The form should never remain spherical for any length of time. A cell that retained the spherical form was either deficient in vitality, or dead.

(b.) The cytoplasm should be absolutely transparent and should contain very little granular matter. Pigment, refractile granules, inclusions and spherical bodies should be absent.

(c.) The movements of the cell should be active and energetic.

A study of the leucocyte in these sufferers lead to the following conclusions:—The more miserable the patient, the greater the amount of granular matter in the leucocyte; that the cells containing the greater amount of granular matter lacked motility; that the cells containing large granules often burst and allowed these granules to swim away; and at the time or just before the onset of the spring and fall periods of the disease, leucocytes containing very highly refractile spheres about one-fifth the diameter of an erythrocyte in size, made their appearance.

The examination and study of the inclusion bodies in the leucocyte was also of great interest. These were found to vary in size in different leucocytes in the same specimen, and also in specimens from different individuals.

It was found that these inclusion bodies could be classified according to size and form. They were called, for matter of record and study, small, medium and large spheres, and small, medium and large dumbbells.

For a considerable time the behavior of these leucocytic inclusions proved to be a problem baffling in the extreme. Their reactions to various stains, the fact that some of them seemed to be growing at the expense of the cytoplasm of the leucocyte while others gradually broke down and disappeared, finally led to the conclusion that two separate phenomena were under observation in the white cells. First, the digestion of particulate protein with consequent changes in reaction,—from acid to alkaline, as the process progressed; and second, the develop-

ment of some micro-organism at the expense of the cytoplasm.

In comparing the microscopic findings with the history of these individuals, it was found that the phenomenon of protein digestion seemed to go on day after day as the disease progressed, but that when the larger inclusions began to appear in the leucocyte, an acute exacerbation with a great increase in the amount of intestinal mucus might be expected in the course of a week or ten days.

In this connection, the fact that active spherical bodies or kinetosporocysts appeared in the blood stream forty-eight to ninety-six hours before mucus bearing the spherical bodies one-fifth the diameter of a red cell, staining very deeply with Gram's method, began to be discharged from the anus, proved of the greatest interest.

These forms were then tabulated to see if a life cycle corresponding to that of any known genus of protzoa could be evolved. The sequence arranged according to the apparent increase in the mass of this organism was as follows: Minute dots, headlets, clumping stage, small dumbbells, medium dumbbells, large dumbbells, thick rods and ovals. From the study of individuals showing these forms in the blood, the following estimate was made:

Merozoites	1st to 2nd day	1 day
In the erythrocyte	2nd to 6th day	4 days
Headlets and clumping stage.	6th to 10th day	4 days
Small dumbbells	10th to 13th day	3 days
Medium dumbbells	13th to 18th day	5 days
Large dumbbells	18th to 21st day	3 days
Clubbed rods	21st to 24th day	3 days
Ovals	24th to 29th day	5 days
SCHIZOGONY	1st to 29th day	28 days

In some individuals this period was apparently as short as twenty-five days. The average for the cases studied was about twenty-eight days.

This cycle was apparently repeated five times in succession. Propagation by schizogony, therefore, covered a period of about 125 to 150 days.

Among the spherical forms the following sequence arranged according to the mass of the cytoplasm of the parasite seems reasonable: Minute dots, headlets, small and larger rings and large highly refractile spheres, 1.5 microns in diameter.

The following estimate of the length of life of the spherical form was tabulated:

Minute dots	1st to 2nd day	1 day
In erythrocyte	2nd to 9th day	7 days
Small and large rings, micro and macrogametes	9th day	1 day
Exogamy	9th to 10th day	1 day
In the leucocyte, or in epithelia, spheres	10th to 22nd day	12 days
In the plasma, spheres	22nd to 26th day	
In the fecal mucus, spheres	26th to 40th day	
SPOROGONY	1st to 23rd day	22 days

The period from the ninth to the fortieth day corresponds to the spring and fall exacerbations. In the period between the twenty-sixth and fortieth days, a great increase in the amount of intestinal mucus is usually present and often intense irritation of the sigmoid and rectum.

Assuming five cycles of schizogony as 140 days, one cycle of sporogony as twenty-two days and the latent period as 160 days, a period of 342 days elapses from sporogony to sporogony in each colony. In most cases of mucous colitis a prognosis almost prophetic in its accuracy can be given if these cycles and periods be kept in mind, provided no degenerative process is present in any of the internal organs. When such degenerative diseases are present, the symptoms of the annual or semi-annual exacerbations are generally referred to the organs in which the degenerative changes are most active, and the symptoms of gastroenteric disturbance lose the position of prominence in the clinical picture. The greatest mortality among sufferers from chronic diseases, as is well known, occurs in the spring and in the fall. That these periods correspond with the cycle of sporogony of these micro-organisms is a fact of some interest in this connection.

The smaller parasites attacking the human blood cells have never attracted much attention among medical thinkers; the larger parasites, however, which produce various disturbances in the blood and in the various internal organs, constituting the class of diseases known as malaria, have all been closely studied and their life history with but few exceptions is well known.

In 1903, Anderson[2] published the results of his studies of the Rocky Mountain spotted fever. His description of the blood conditions and the drawings that he made at that time may be called epoch making in the annals of the smaller human parasites. In this article he first enunciated the difficulty of applying any known staining methods in the study of these minute

organisms, and called attention to the quickness with which they disappeared when the chemical or physical conditions of the medium in which they lived are in any way disturbed.

In 1904, Wilson and Chowning[3] published an exhaustive article entitled, "Histoplasmosis Hominis," dealing with the Rocky Mountain spotted fever from the clinical standpoint. The carefully drawn plates that accompany this article are well worth careful study.

In 1906, Ricketts[4] carried out and published the results of his very interesting experiments in inoculations of guinea pigs and other animals.

He was able to demonstrate the infective power of the serum and erythrocytes from cases of spotted fever and by transferring the infection from guinea pigs to monkeys and back again, was able to keep the virus viable for several months. In the course of his investigations he also found that infected female ticks could transmit the disease to their offspring through their ova.[5]

In the life histories of the spirochaetaeceae, more especially in the sub-order spiroschaudinnia, to which many of the relapsing and tick fevers of man belong, many interesting facts that may be applied in the study of these minute blood parasites may be found.

E. H. Ross and also McDonagh[6] in their work upon the treponema pallidum, mention several phenomena in the schizogony and sporogony of this protozoa that are strangely paralleled in the biological processes of the parasites described in this paper. The behavior of the treponemeta and the thileria in the leucocyte is nearly identical.

In 1916 Foster[7] published the results of his investigation upon the common catarrhal colds. His description of the cultural experiments with these protozoa and also the very interesting experiments in inoculation that he conducted with this virus are extremely valuable in pointing the way for future investigation in human thileriasis. More especially in that he has succeeded in cultivating a virus and after cultivation has been able to transmit the infection to the human subject again.

The work of the Harvard Commission upon the disease Verruga peruviana, Oray fever or Carrion's disease, is also of extreme interest. Here we have a sub-tropical disease that attacks the red cells directly, producing a profound anemic condition, and eventually leading to cutaneous symptoms.

Nicholl[8] in 1898 reported certain small spherical bodies observed by H. F. Muller of Nothnagel's clinic in Vienna. He mentions the fact that these bodies do not give the chemical reaction for fat and believes that they are oxyphylic and neutrophilic granules extruded from the leucocytes. He also states that they show no progressive motion, but a very active Brownian movement. This is of interest, as the ring form of the thileria, which he apparently had under observation, is rather inactive, especially if the specimen is chilled.

Stokes and Wegeforth[9] discuss these bodies at some length and conclude that they may have some influence upon immunity against bacterial invasion of the tissues. They think that, in the course of their studies of fresh specimens of bloods, they have seen these bodies leave the leucocyte.

As is mentioned above, I have often observed thileria leaving the polymorphonuclear leucocyte, but the reason for this exit I am unable to explain. Leucocytes, if kept at body temperatures, occasionally degenerate while under observation, forming apparently blood platelets, but any fine granular matter resulting from this process does not seem to have any active Brownian movement. It is of interest to note that the platelets, if the specimens are kept at body temperature, also degenerate, dissolving into the plasma. This affords a beautiful and easily demonstrated phenomenon of parental protein digeation.

In searching the literature of human parasites, I am unable to find any report of the observation of a hematozoic organism of dumbbell form.

On the other hand, investigators have carried these researches to a greater length in the lesser members of the animal kingdom. The information that has been gained from this source should in the future be of untold benefit to the science of human protozoology, and should ultimately lead to the solution of many of the obscure problems in human pathology as well.

The studies of the protozoa in the malignant fevers in sheep in 1880 and in cattle in 1888, conducted by Babes, may be called epoch making. This led to a closer study of other diseases of obscure etiology that had formerly been attributed to the invasion of bacteria, and in 1889 Laveran described the parasite of the malignant

jaundice of horses and established the sub-genus Nuttalia.

The work of Smith and Kilborne in the problem of the Texas cattle fever in 1893 and the tremendous economic results of these studies is well known.

Piana and Galli Valerio in 1895 described a form of Babesia that they proved to be the cause of the malignant jaundice in dogs.

The work of Theiler in 1903 in his investigation of the African East Coast fever in cattle is of extreme interest in connection with the subject of piroplasmosis.

His description of the minute bacillary forms and small rings, developing into pyriform bodies, and the protoplasmic masses containing numerous chromatin particles is especially interesting in connection with the subject at hand.

A marked analogy between the parasites of this class in animals and in human beings will be seen at once, and if the epithelial cells and the polynuclear leucocytes are substituted for the lymphocyte, the latter being the cell selected for the process of sporogony in the bovine race, the life history of the micro-organism within the body becomes nearly identical.

An interesting fact concerning the symptoms present in animals infected with this parasite is the absence of pronounced anemia and hemoglobinuria.[6]

It is a great source of regret that, through lack of time, I have been unable to carry out cultural experiments upon this very interesting protozoa. I find in my routine examinations of the bloods of my patients from day to day, that it is very prevalent here in America, and I have often wondered, if this source of foreign protein does not account for the variance in the types of diseases of the abdominal viscera from those we found in Northern Europe, when we used to visit the clinics of our late enemy the Teuton.

BIBLIOGRAPHY.

[1]Manson, Tropical Diseases.
[2]Anderson, J. W. 1903. Bull. 14, U. S. Pub. Health Reports.
[3]Wilson and Chowning. 1904. Jour. Infectious Dis. I., p. 31.
[4]Ricketts. Jour. Infectious Dis. 1907. IV., p. 141.
[5]Ricketts. J. A. M. A. 1906. XLVII., pp. 33, 358, 1067.
[6]Castellani & Chalmers. Man. Tropical Med. p. 409.
[7]Foster, Geo. B.; J. A. M. A. April 15, 1916.
[8]Nicholl. Phila. Med. Jour. Feb. 26, 1898.
[9]Stokes & Wegeforth. Johns Hopkins Bul. December 1897.

Annual Conference of Public Health and Legislation

Called by the Council on Health and Public Instruction of the American Medical Association.

Thursday, March 4, 1920.

Auditorium Hotel, Chicago.

PROGRAM

Morning Program.

1. Call to Order, 9:30 a. m.
2. Chairman's Address, Dr. Victor C. Vaughan, Chairman, Council on Health and Public Instruction, American Medical Association.
3. Secretary's Report, Dr. Frederick R. Green, Secretary, Council on Health and Public Instruction, American Medical Association.
4. "Standardization of Public Health Activities," Dr. George E. Vincent, President, Rockefeller Foundation.
5. "Standardization of State Public Health Organizations," Dr. Charles V. Chapin, Commissioner of Health, Providence, R. I.
6. "Standardization of Municipal Health Organization," Dr. Allen McLaughlin, Assistant Surgeon-General, United States Public Health Service.
7. General Discussion, opened by Dr. C. St. Clair Drake, Commisioner of Health, Springfield, Ill., and Dr. Ennion Williams, Commissioner of Health, Richmond, Va.

Afternoon Program, 2 P. M.

SYMPOSIUM ON HEALTH EDUCATION OF THE PUBLIC.

1. "Health Education in the Public Schools—Thirty Years' Experience in Michigan," Dr. Victor C. Vaughan, Ann Arbor, Mich.
2. "Health Education and Activities in Colleges and Universities," Dr. John Sundwall, Director, Students' Health Service, University of Minnesota, Minneapolis, Minn.
3. "Health Education a Function of Municipal Health Departments," Dr. Haven Emerson, New York.
4. "Health Education a Function of State Health Departments," Dr. W. S. Rankin, Secretary, State Board of Health, Raleigh, N. C.
5. "Health Education a Function of the Federal Government," Dr. Charles V. Bolduan, Director, Division of Public Health Education, U. S. Public Health Service.
6. General Discussion, opened by Dr. John M. Dodson, Chicago; Prof. W. B. Owen, Superintendent, Chicago Normal College.

THE RHODE ISLAND MEDICAL JOURNAL

Owned and Published by the Rhode Island Medical Society

Issued Monthly under the direction of the Publication Committee

ROLAND HAMMOND, M. D., *Editor*
219 Waterman Street, Providence, R. I.

W. A. RISK, M. D.
Business Manager
219 Waterman Street
Providence, R. I.

WILLIAM F. BARRY, M. D.
ASA S. BRIGGS, M. D.
ALEX M. BURGESS, M. D.
CHARLES S. CHRISTIE, M. D.
JOHN E. DONLEY, M. D.
J. W. LEECH, M. D.
NORMAN M. MACLEOD, M. D.
F. T. ROGERS, M. D.
Associate Editors

Committee on Publication
ROLAND HAMMOND, M. D., *Chairman*
F. T. ROGERS, M. D.
W. A. RISK, M. D.
JOHN M. PETERS, M. D.
J. W. LEECH, M. D.

Editorial Correspondence, Books for Review and Exchanges should be addressed to the Editor; Advertising Correspondence to the Business Manager.

Advertising matter must be received by the 10th of the month preceding date of issue.

Advertising rates furnished upon application, to the business manager, W. A. Risk, M. D., 219 Waterman Street, Providence, R. I.

Reprints will be furnished at the following prices, providing a request for same is made at time proof is returned: 100, 4 pages without covers, $6.00; each additional 100, $1.00. 100, 8 pages, without covers, $7.50; each additional 100, $2.80; 100, with covers, $12.00; each additional 100, $4.80. 100, 16 pages, without covers, $10.50; each additional 100, $3.00; 100, with covers, $16.00, each additional 100, $5.50.

SUBSCRIPTION PRICE, $2.00 PER ANNUM. SINGLE COPIES, 25 CENTS.

Entered at Providence, R. I. Post Office as Second-class Matter.

RHODE ISLAND MEDICAL SOCIETY

Meets the first Thursday in September, December, March and June

JOHN M. PETERS	*President*	Providence
JESSE E. MOWRY	*1st Vice-President*	Providence
HERBERT TERRY	*2d Vice-President*	Providence
JAMES W. LEECH	*Secretary*	Providence
HENRY J. HOYE	*Treasurer*	Providence

DISTRICT SOCIETIES

KENT

Meets the second Thursday in each month

FRANK B. SMITH	*President*	Washington
J. F. ARCHAMBAULT	*Secretary*	Arctic

NEWPORT

Meets the third Thursday in each month

EDWARD V. MURPHY	*President*	Newport
A. CHACE SANFORD	*Secretary*	Newport

PAWTUCKET

Meets the third Thursday in each month excepting July and August

E. J. MATHEWSON	*President*	Pawtucket
CONRAD E. THIBODEAU	*Secretary*	Pawtucket

PROVIDENCE

Meets the first Monday in each month excepting July, August and September

DENNETT L. RICHARDSON	*President*	Providence
RAYMOND G. BUGBEE	*Secretary*	Providence

WASHINGTON

Meets the second Thursday in January, April, July and October

JOHN CHAMPLIN	*President*	Westerly
W. A. HILLARD	*Secretary*	Westerly

WOONSOCKET

Meets the second Thursday in each month excepting July and August

EDWARD L. MYERS	*President*	Woonsocket
E. F. HAMLIN	*Secretary*	Slatersville

R. I. Ophthalmological and Otological Society—2d Thursday—October, December, February, April and Annual at call of President Dr. Frank J. McCabe, President; Dr. C. J. Astle, Secretary-Treasurer.

EDITORIALS

ENLARGING THE SCOPE OF THE JOURNAL.

During the past few weeks the JOURNAL has consummated a long cherished plan for bringing into closer contact the component medical districts of the State. When the RHODE ISLAND MEDICAL JOURNAL took over the activities of the *Providence Medical Journal* a little over three years ago, it was at first difficult to eradicate the idea that the new organ was the mouth piece of medical societies of the capital city. Now that the JOURNAL has been revived and is in a healthy financial condition, it has seemed wise to expand our activities and to bring the county societies into closer touch. This has been accomplished by inviting a representative from each district society to act as an associate editor for his district. Besides giving the JOURNAL the benefit of his opinions on medical subjects in editorial form, he will act as reporter for his district, and furnish items of interest to the profession and reports of local meetings. We have been fortunate in securing the co-operation and pledges of support from gentlemen who are not

only recognized as leaders of medical thought in their communities but who possess literary ability as well. Such evidences of the latter talent as have come to hand lead us to believe that we have not been mistaken in our choice.

Dr. William F. Barry of Woonsocket will represent the northern part of the State; Dr. Charles S. Christie of River Point will represent Kent County; Dr. Asa S. Briggs of Ashaway will serve for Washington County; and Dr. Norman M. MacLeod of Newport for Newport County.

WHAT IS THE PRACTICE OF MEDICINE?

In these days when certain cults have developed from local sources to national importance—the question is apt to arise as to the methods used. Are these methods—whether they be manipulations of the vertebrae or manipulations of the mind of the seeker for relief—the practice of medicine? What is the practice of medicine? Is it—as some courts have claimed—the narrow interpretation of the word medicine, as "a substance or thing which has or is believed to have certain curative properties which are exercised upon the body by taking the substance into the system in some way or by applying it to the body externally" that determines the status of these cults; or is it the broader interpretation which defines medicine as "the science or system of curing, healing, alleviating or preventing disease, physical disorders and injuries without reference to the means employed to accomplish this end."

If instead of the phrase "the practice of medicine," the term "the healing art" were more commonly used—and this is the suggestion of the President of the Federation of State Medical Boards—there would not be the confusion that has been manifest in all courts that have to decide these matters. In our own State in 1898 the Supreme Court rendered a decision that Christian Science was not the practice of medicine—because prayer alone is used and no attempt is made to cure by physical means. Other Courts have made other decisions in regard to this cult, one from Ohio reading: "In praying for the recovery of a patient, a Christian Scientist is giving treatment to cure patients of disease and the patient pays therefor. He is thus practicing the healing or curing of disease." In 1919—however—the Supreme Court of Rhode Island took the broader interpretation in the decision handed down concerning the ability of osteopaths to sign death certificates. They contend that the osteopath is practicing medicine within the meaning of the word and therefore is entitled to perform the functions of a regularly qualified physician under the law.

The chiropractors also come under the same category as was decided recently in a case before the Rhode Island Courts. The Court ruled that the practice of chiropractic was the practice of medicine. Will it be wiser to do as Colorado has done and have separate qualifications for the separate cults or to insist as New York does that every person practicing medicine should have similar qualifications? Undoubtedly under the Colorado system it will be easier to control the cults legally, but it seems as if the other method protects the public; and that should be the object to be attained for "Salus populi est suprema lex."

SUPPORT THE MEDICAL SOCIETIES.

As professional men with a high sense of our duty to the public, we deplore examples of unrest in the industrial world such as railway, coal, steel and policemen's strikes, which aim at the very root of our national life and existence. We would treat as a joke the suggestion of a strike of doctors. And yet the profession is sharing in the spirit of unrest which pervades the entire civilized world today. A visit to any of the well-recognized centres of medical learning in this country will show that very few men are working on original problems involving research. They go about their routine work in a lackadaisical spirit, satisfied with their accomplishments from day to day.

Medical societies have found difficulty in resuscitating themselves from the blighting effects of the war. While the attendance at meetings may show no perceptible falling off from prewar standards, there is a lack of interest which is reflected in the spirit of the meetings. The papers read are palpably deficient in quality and interest. The discussion seldom rises above the mediocre.

In our local societies similar conditions prevail. The president has much difficulty in securing men to write papers for the meetings, and the editor is likewise harassed in persuad-

ing the writers to put their papers in suitable form for publication in the JOURNAL.

There is a tendency in certain sections of the profession to decry our local societies, and the statement is occasionally heard that the meetings are not worth attending. Why are they not worth attending? Chiefly for the reason that the very men who rail against them take no active part in the proceedings. If these men would collect their interesting cases, tabulate their results and report them at our meetings, we should have as interesting and productive sessions as any similar organizations in the country. It has always been difficult to overcome the inertia of the average man and get this sort of work started, but it has been infinitely harder since the war has ended.

It behooves us all to shake off this spirit of unrest which is inimical to a healthy professional progress in this community as well as elsewhere. Let us get down to work and produce papers which shall be of interest and profit to the local profession. Let us support the presidents of our local societies who are struggling under heavy burdens in attempting to make the meetings worthy of a larger attendance. In this way the JOURNAL will be furnished with interesting contributions which are read with profit by medical men all over the State, many of whom are prevented from attending the meetings. If the medical societies and the JOURNAL are worth keeping up, they deserve our whole hearted support.

THE WIDELY TRAINED MAN SHOULD WRITE MORE.

In medical literature we are blessed with the most able reports of the work of the scientific investigators who make medical research their aim. We have reports of the work of the specialists in all sorts of lines; the surgeons who confine their operations to a few inches of the body, and are absolute authorities on their own particular areas, the gastro-intestinal, orthopedic, diabetic, obstetric, neurological, x-ray, tuberculosis, pediatric, geriatric, and so on through the dictionary, specialists. All these able men find time to report their case findings, and we all are benefited thereby. But what of the man who sees a wider range of medicine, whose wider view of the field ought to give us new perspectives? We need more reports from the surgeons who do general surgery, the medical men who see a variety of cases, the men who are able to see not simply through the high power microscope, but who can look abroad through the naked eyes, and see intelligently. These are the men who could check up and correlate the findings of the specialists and who could give us new relations of one thing to another. And yet our medical literature has little from their pens. Are they hesitating to have their more general observations compared with the intricate specialized observations? Are they too weary in the press of work to keep careful case records which would back up their deductions? It does not seem credible that the keen minds are all in the possession of the research workers and specialists. We want to hear more from the man with the broader training.

CASE REPORTS IN MEDICAL MEETINGS.

If one of the functions of Medical Meetings be that of teaching, then it would seem that the Clinical Department should occupy a much larger place. At the meetings of many societies the call for case reports is followed by a short silence and the meeting proceeds to transact its cut and dried business. It has been said that the doctor's sins are largely those of omission and not commission. If this be true a valuable means of keeping the unusual in mind would be the free discussion of cases. One of the most interesting departments of medical journals and medical meetings is the report of actual occurrences. A situation that a fellow member has actually handled is full of interest because it is real, and furthermore the witness is available for cross examination. It is rare to miss a veritable cross fire of questions after a case report from men who in the absence of any clinical discussion would not be heard from during an entire meeting.

Too often the report is simply a report of some abnormality which has not called for any skill in differential diagnosis and perhaps offered nothing remarkable in treatment. Even a rehearsal of the unusual is, however, a most interesting part of a meeting. The preparation of a case report should not be made too onerous lest the time required defeat the end sought. A case that has terminated in such a way as to make the diagnosis fairly certain, either by

autopsy or operation, or has shown a positive test of some sort, is more desirable, but one in which the diagnosis is reached by exclusion may bring forth a very wholesome discussion. The history need only contain the pertinent facts which are usually few. The clinical data and tests may be jotted down from memory or bedside notes, thus leaving for extra reading only the differential diagnosis, which may as a rule be had from any standard work at hand. Not much time will have been required to get the discussion started and once started a host of interesting and instructive facts are sure to follow.

A scheme might be put into vogue whereby at each meeting the secretary announce from an alphabetical list the name of the member who would conduct the Clinical Department at the next meeting. This part of the meeting might have a definitely established place and carry a time limit so that the conductor would know where to begin and how long to continue the discussion. With such a definite plan in operation it is probable that nearly every member would cheerfully and ably do his part of a clearly defined programme.

FEDERAL AID TO SOLDIERS.

In almost every community in the United States there is a discharged soldier, sailor, marine, or war nurse, suffering from some injury, or ailment, which dates back to service with the fighting forces.

Often this injury or ailment has made it hard or impossible for them to fit in where they did formerly. They are handicapped and need help; not charity, but mental and physical reconstruction. In many cases such people unfortunately keep their troubles to themselves. They are reluctant to seek aid or advice, for fear their friends might consider them weak.

The War Risk Insurance Bureau and the United States Public Health Service are especially anxious to get in touch with such individuals. The Public Health Service has set up a chain of reconstruction bases throughout the country for beneficiaries of the War Risk Bureau. These are not Army hospitals, nor is there Army discipline in connection with them, but rather a system of hospitals similar to the general hospital in large cities except that the treatment is free and goes much further than in the ordinary hospital.

Recreation, vocational training and wholesome entertainment are combined with treatment. While men are being bodily rebuilt they have the opportunity of learning some useful occupation, or pursuing academic studies. They are taught not only to find themselves, but to better their condition. The environment is as homelike as it is possible to make it.

A great many men who went into the Army have developed tuberculosis and other diseases requiring special treatment. The Public Health Service has separate hospitals and sanatoriums for these patients, where they may get the best treatment known to medical science.

A large number of soldiers are not yet aware that the Government offers them free treatment.

SOCIETY MEETINGS

Newport County Medical Society.

The annual meeting of the Newport County Medical Society was held at Newport, January 22, 1920. The following officers were elected for the ensuing year:

President—Dr. A. F. Squire, Newport.

First Vice President—Dr. C. W. Stewart, Newport.

Second Vice President—Dr. Norman M. MacLeod, Newport.

Secretary—Dr. A. C. Sanford, Newport.

Treasurer—Dr. D. P. A. Jacoby, Newport.

Pawtucket Medical Association.

The regular monthly meeting of the Pawtucket Medical Association was held at the Out-patient Building, Memorial Hospital, February 19, 1920, at 8:45 o'clock. Dr. Stanley Sprague was the speaker of the evening.

C. E. Thibodeau, *Secretary.*

Providence Medical Association.

January 5, 1920.

The annual meeting of the Providence Medical Association was held at the Medical Library, January 5, 1920. The meeting was called to order at 8:55 p. m. by the President, Dr. Harry W. Kimball.

The records of the previous meeting were read and approved.

The Secretary's report showing a total membership of 313 was read and accepted.

The Treasurer's report showing a balance of $1,278.61 from which $300.00 is to be deducted for the use of the Medical Library for the year 1919 was read and accepted.

The report of the Standing Committee was read and accepted.

A motion was made by the Treasurer that a canceled personal check would be sufficient receipt for payment of dues. By permission of the President the order of business was suspended and motion carried.

The report of the Reading Room Committee was read and ordered placed on file. This report showed a total of 27 journals subscribed for the Library by the Association

The next order of business being the President's annual address, Dr. Harry W. Kimball in a brief but pertinent paper urged the members to more active participation in the reading and writing of papers for the society meetings, as well as for medical transactions in general laying especial stress on the wealth of clinical material and experience in our community lost to the medical profession because of the inactivity of our members in working up and reporting their observations.

There being no counter nominations for officers and committees, a motion was made and seconded that Dr. Roland Hammond be instructed to cast one ballot for the entire ticket as recommended by the Standing Committee. The motion was passed, the ballot cast, and the following officers and committees were unanimously elected:

For President—Dennett L. Richardson, M. D.

For Vice President—Frank T. Fulton, M. D.

For Secretary—Raymond G. Bugbee, M. D.

For Treasurer—Charles F. Deacon, M. D.

For Member of the Standing Committee for five years—Harry W. Kimball, M. D.

For Trustee of the R. I. Medical Library Building for one year—J. T. Farrell, M. D.

For Reading Room Committee—George S. Mathews, M. D., M. B. Milan, M. D., Henry A. Cooke, M. D.

For delegates to the House of Delegates of Rhode Island Medical Society— A. D. Rose, M. D., George R. Barden, M. D., William H. Magill, M. D., Edward S. Brackett, M. D., William Hindle, M. D., Albert H. Miller, M. D., Frederick N. Brown, M. D., H. G. Calder, M. D., J. B. McKenna, M. D., F. G. Phillips, M, D., George T. Spicer, M. D., C. A. McDonald, M. D., J. P. Cooney, M. D., W. A. Risk, M. D., George A. Matteson, M. D.

Dr. Roland Hammond and Dr. George A. Matteson were delegated by the retiring President to escort Dr. Richardson to the chair.

The new President thanked the members in a few words for the honor received, and announced that the appointment of committees by the President would be deferred until the next meeting.

The applications of Dr. Paul C. Cook, Dr. Hilary Connor and Dr. Parker Mills having been approved by the Standing Committee, it was moved that the Secretary cast one ballot for their election.

Dr. C. H. Leonard moved that the date and place of birth be substituted for age and nativity on the application blank, was seconded and carried.

The report of the Committee on a Memorial to Dr. John W. Mitchell was read. It was moved and seconded that the report be accepted, spread upon the records, and a copy sent to the nearest relative. Motion passed.

Memorial to John W. Mitchell, M. D.

The Providence Medical Association desires to place on record an expression of the profound sense of the great loss the Society and the Community has sustained through the death of Dr. John Waite Mitchell, which occurred February 27, 1919.

Dr. Mitchell was born in Norwich, New York, April 6, 1848. He attended Williston Academy, East Hampton, Massachusetts, and was given his degree in medicine at the Bellevue Hospital Medical College in 1870.

He then served as interne in Bellevue Hospital until 1872, where he came in contact with many of the noted medical men of the period, among whom may be mentioned Valentine Mott, James R. Wood, Crane, Flint, and Alonzo Clark.

Dr. Joseph D. Bryant was a fellow classmate and townsman, and a beloved life long friend of Dr. Mitchell.

In 1872 Dr. Mitchell entered upon the practice of medicine in Providence, and by his honesty, steadfastness, application, and marked ability,

placed himself at the head of the profession in this State.

He possessed in a large degree that essential attribute of the successful physician, a love for suffering humanity, and a willingness to sacrifice his own comfort to succor the poor and the sick.

Dr. Mitchell was family physician to the President of Brown University, and Dr. Faunce in his inimitable rhetoric has the following to say of our beloved friend and Fellow:

"The death of Dr. John Waite Mitchell means much to thousands of our citizens. He did not strive, nor cry, nor lift up his voice in the streets. Yet for fifty years he passed quietly, swiftly, from house to house, from office to hospital, leaving behind him everywhere gladness and gratitude.

"What were his politics? We can not tell. What was his religious denomination? We may not know. But there is no finer patriotism, and no more truly religious devotion than in such a life of self-forgetful beneficence.

"Scores of the leading men and women in our State were either brought into the world by his aid or carried through dark and perilous days by his tireless devotion. Many of us know that our children are his gift, and our parents are still with us, because of his skill. How eagerly he climbed the stairs of the tenement house and how lavishly he poured out his strength for unknown sufferers in our hospital. In the home of the sick and poor, learned and ignorant, he was a calming and healing presence, and our faith in him was deeper than our faith in medicine.

"He did not know how to rest. His only recreation was late at night to sit down with a medical journal under his office lamp, and while his patients were sleeping, to read of the triumphs of other workers in over-coming human pain. Himself he could not save. But while life lasts, many of us will find each day brighter because we remember his radiant smile, his feminine delicacy, his soldier-like courage, his rare union of science and sympathy, in the service of his fellow men."

Resolved that this memorial be spread upon the minutes.

GEORGE L. COLLINS,
FRANK L. DAY,
JOHN W. KEEFE.

Motion made and seconded that the dues for 1920 be $4.00. Motion passed.

Motion that library appropriation of $175.00 for the Reading Room Committee seconded and carried.

Dr. Skelton moved that Dr. W. R. White be called upon for a poem, to which Dr. White responded in humorous rhyme characterizing the officers of the Association.

Meeting adjourned at 9:45 p. m.

Attendance—44 members and five guests.

Collation followed.

RAYMOND G. BUGBEE, M. D., *Secretary.*

HOSPITALS

PROVIDENCE CITY HOSPITAL.

Dr. Maurice Miller finished six months' service on December 11, 1919, and began service at Rhode Island Hospital on January 1. Dr. Jonathan Hadfield began a six months' service on December, 1919.

On January 1, Dr. Arthur T. Wyatt finished a six months' service and began a service at the hospital in Scranton, Pa.

Dr. George Andrews finished three months' service December 31, 1919, to enter practice in Syracuse, N. Y.

On January 1, Dr. Benedict Olch, Harvard, 1919, began a six months' service and Dr. Merrill Parker, Syracuse, 1919, began a three months' service.

BOOK REVIEW

PERSONAL HYGIENE AND HOME NURSING.

A Practical Text Book for Girls and Women for Home and School Use, by Louisa C. Lippitt, R. N. Published by the World Book Company, N. Y.

There is no question but that such a book as Miss Lippitt has written has a distinct place.

Its purpose, as shown by the title is two-fold—that of teaching girls and young women the important art of right living and in giving them practical instruction in handling emergencies in accident and sickness.

The late war and particularly the epidemic of one year ago, has impressed upon the public the value of such training in the home. Admitting, however, that a little, necessarily superficial

knowledge may be dangerous to some, yet one cannot but feel that by the sensible way in which these subjects are presented in this volume, it will help in overcoming much carelessness and ignorance in these days on the part of most girls with respect to their health and to meet that so often utter helplessness in times of emergency.

The book, though admirable as it is in so many ways, is not without its faults. The author handles well those subjects with which she is so fitted to deal, namely, personal hygiene and nursing care of the sick, but in some of the chapters pertaining to disease conditions and their treatment, statements are made which are open to criticism and should at least be qualified. Again, it seems as if the author devotes too much attention in many places to discussion which will be of little pracitcal value to the reader, where on the other hand it would be desirable for one to know more about the early signs and symptoms of the communicable diseases. For instance, she takes up at length the use of antitoxin in diphtheria yet fails to give the reader any idea what the disease is like in its various forms or when to suspect its presence.

These criticisms are, however, of minor importance and detract but little from the general usefulness the book should have.

E. S. W.

During the last twenty years it has been possible to reduce the general death rate in the United States from 17.6 to 14.2. This represents a truly enormous saving of life. Had the conditions of twenty years ago prevailed during the year just passed some 350,000 more persons would have died than actually did die. By dissemination of health educational matter the newspapers must be given credit for very materially helping in this substantial achievement.

Bureau of Public Health.

MISCELLANEOUS

The Library Table.

Many men have written and will, of course, continue to write, text-books of medicine. That such books have their uses no one can deny, for they are, as it were, abstract and brief chronicles of contemporary medical knowledge. As books of reference they are valuable, but for continuous study they hold little appeal, unless perhaps, one is not averse to feeding upon sawdust. And how mechanical most of these books are: There is so little that is individual about them. You know just what to expect since they are all cut to the same pattern, and you are seldom disappointed. First you read a definition of the disease under discussion; then follow the inevitable paragraphs or sections on etiology, symptoms, morbid anatomy, diagnosis, prognosis and treatment. It is all very general, very abstract, having no doubt, the substance of learning, but wanting in that quality which gives a book its greatest interest and charm,—the personality of the author.

Now compare, if you will, these modern makers of books with the older masters of medicine. These latter are, we do not say more thorough, for that is not true, but more concrete, more vivacious. They give you as they proceed their own reflections upon their own experience. They do not feed you upon statistics,—for the most part of no great value,—nor do they when they inform you of other men's opinions, leave you in doubt about their own. They are not misty when they can be clear, diffuse when they can be concise, abstract when they can be specific.

All of this apropos of the older classic books of lectures on clinical medicine. Your library table holds, let us say, the works of Graves, Corrigan, Stokes together with those of Broadbent, Sir Thomas Watson and that brilliant Frenchman Trousseau. With Trousseau you walk the wards of the ancient Hotel Dieu; afterwards you listen while he discourses about aphasia. And how does he speak? Not in generalities, but thus, "Those very individuals whose intellect seems to be least impaired, have still lost some of it. Recall to mind the case of my colleague, who was aphasic for a few hours only, and who remembered so well the curious phases through which his mind has passed. He was seized while reading one of Lamartine's Literary Conversations. This is not fatiguing reading, which requires great attention, and yet he noticed that he did not understand well what he was reading. He put his book down for a while, but on taking it up again, he made the same remark. On then trying to speak, he could not utter a single word, and on attempting to write, could not manage it either; yet, alarmed by these symp-

toms, he moved his arms, his tongue, and thus ascertained that he was not paralyzed. He even collected his thoughts and asked himself what part of his brain could be, at that moment injured. His intellect, therefore, was of a greater range than that of many men, and yet it was impaired, as proved by the difficulty which he had in understanding a page of Lamartine." Who can read this, at once so vivid and so true, without acquiring what Cardinal Newman would call a real as distinguished from a merely notional apprehension of aphasia.

But perhaps you open the lectures of Robert James Graves delivered in the Meath Hospital in Dublin. If so you will admire his cosmopolitan scholarship, his clinical judgments born of wisdom, his large sympathy and magnanimity, his manner of speech, lucidly simple and appropriate. He sweeps a wide horizon of clinical medicine and has much to say about many kinds of fevers, especially as to their treatment. He remarks upon the *nimia diligentia medici,* so common in his time, and says that if you look at the plan of treatment employed by the physicians of those days, you will be prepared from a mere inspection of it to admit that it was at least as hard to escape the physician as the disease. Then follows in detail his famous plan for the feeding of fever patients, quite as valuable now as then. His lectures on bronchitis, to mention only one example, are full of helpful advice based on his multifarious experience. He wastes no time on high imaginings or verbal sophistries, but grips the practical problem at once. "You perceive," he says, "that if a patient catches cold and gets an attack on the chest, it is of great importance to be able to ascertain what the situation and extent of the disease are, and whether the minute bronchial tubes are engaged or not. Now how do you know this? Simply thus,—You first make a cursory examination of the whole chest, by applying the stethoscope over the superior, middle and inferior portion of each lung, both before and behind; and if you everywhere hear something, you conclude that the bronchitis is general and not confined to any particular part. You next proceed to examine with greater attention these wheezing sounds; you apply the stethoscope, and if you find in each separate spot many sources of sound—if you hear a wheezing from a great many points close together—you may be sure that the morbid sound proceeds from inflammation of the minute tubes, for the larger ones cannot exist in the small spots over which you apply the stethoscope in such numbers as to give rise to such a remarkable plurality of sounds. Of this you may be certain, that when you find a great many sounds are audible over a small space, the minute bronchial ramifications are engaged." No recent writer, we venture to think, has put the matter more succinctly or more clearly.

It would be interesting, did space permit, to illustrate from their lectures the evolution of ideas in the minds of men so different as Paget and Brodie, Broadbent and Sir Thomas Watson. Each after his fashion contributed largely to the upbuilding of clinical medicine and while many of their views are now extinct, their ways of viewing are as true and useful as ever they were. While they lacked many of our instruments of precision, they possessed remarkable instruments of prevision, trained intellects whose workings and products are of interest and practical value to us always. Surely we are no mere *laudatores temporis acti,* and yet it may be said that we do but surrender some precious part of our heritage when we neglect the writings of these older masters in the difficult art of healing, whose thoughts, as being those of masters indeed, are perenially new.

J. E. D.

MOTION TO ADJOURN.*

By William R. White, M. D.,
Providence, R. I.

My Friends I really must confess
I cannot even make a guess.
For life of me I cannot see
Why this great honor comes to me.

I think some person called my name.
If so, on him put all the blame
For he, as each of you, well knows
I can't adjournment move in prose.

If you'll permit the use of rhyme
The present task I'll not decline.
But some of you quite soon, must learn
To make a motion to adjourn.

There's one good thing about my verse,
Although it's bad it might be worse.
And this again I think is true
No better could be made by you.

* Read before the Providence Medical Association, January 5, 1920.

And if elsewhere we chance to meet
And I in rhyme shall you then greet,
Do not exclaim, "this now must end,"
To Butler we this nut must send.

This one great truth we all well know
That men may come and men may go;
So if that law holds every where
It rules our presidential chair.

There surely is no slightest doubt
Regarding him who now goes out.
His rulings have been just and fair,
Delivered from that honored chair.

By his address to-night we're taught
A man is he to lead men's thought.
And well may we again rejoice
That we last year made him our choice.

With dignity and charming grace
Of manner, language, form and face,
He's shown us parliamentary lore
That rarely has been seen before.

His winning voice, his genial smile
Prove this young man is free from guile.
But one conclusion can we reach
Our "Harry" is indeed a peach.

Now if perchance we mutely grieve
To see Doc Kimball take his leave
We need not likewise now conceal
The satisfaction we all feel,

That to the place once held by him
Doc Richardson now enters in.
For this one thought fills every mind
That better man we could not find.

For well we know its his intent
To be a first class president.
Our duty now becomes most clear.
Make Nineteen twenty our best year.

In that far corner, off one side,
We see again our last year's scribe;
Cause of re-election is
We think we know he knows his biz.

He sits behind that same big book,
Behind which once sat Charley Cook
To speak whose name now makes me glad
I call him son, he calls me dad.

Doc Bugbee will, keen notice take;
Of what's done here he'll record make.
Whatever we may have to tell
He must write down and do it well.

I fancy he may sometimes hear
Things said that seem a little queer
So on the whole he much will learn
And at same time his salary earn.

To-night our minds should thrill with pride
At thought of him who's lately died.
And who before the whole world stood,
Physician wise and brave and good.

He Knighthood had, conferred by King,
With all the honors it could bring;
But far more bright the great renown
His life and deeds have handed down.

A life like his can't half be told,
Its value measured not in gold;
Beyond the skill of writer's pen
Impressions made on hearts of men.

Although he held the highest place,
Of arrogance no slightest trace.
A joy it is to doctors all
Our Osler we may brother call.

As thus we are assembled here
On threshold of another year
Its well to give brief thoughtful heed
To what shall be our New Year's Creed.

Mankind would surely know less strife
Were Golden Rule the guide of life.
Such life indeed were sweet and true,
As you'd have done, so do shall you.

The Great Physician's creed observe,
He came on earth to save and serve.
To-day for us how grand the plan
I my brother's keeper am.

Let us our watch word now recall
It's all for one and one for all.
Unselfish service, kindly deed
That is our grand physician's creed.

Fraternal love, each one his part
With hand to hand and heart to heart,
United thus it seems to me
We may in truth close brothers be.

To-night and here I dare foretell
Such rule of life will serve us well
With greetings now I drop my pen,
God rest you friends and gentlemen.

If only Doctor Burge were here,
The expert whom we all hold dear,
My duty then would be complete
'Twere simply this, to keep my seat.

We haven't seen him here of late
And now I learn he's left the State.
This word from him to you I bring
That he'll be back in early spring.

So if to me the honor's come
I willing am to be the one,
And trusting you will all approve
Adjournment, sir to you, I move.